IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A process for increasing a rate of a biocatalysis reaction, which comprises:

applying a direct current (DC) electric field to a reaction mixture, wherein the reaction mixture includes an ionic buffer, and electrodes used to apply said electric field are separated from the reaction mixture by a separation membrane of a polarity to prevent transport of the ionic buffer and such that the reaction mixture does not come into contact with said electrodes.

2. (Original) A process according to claim 1, wherein said electric field is applied for a sufficient time to stimulate the biocatalysis reaction in the reaction mixture.

3. (Canceled)

4. (Canceled)

5. (Currently Amended) A process according to claim [[4]] 1, wherein said separation membrane is a bipolar ion exchange membrane.

6. (Previously Presented) A process according to claim 1, wherein said electrodes form part of an electrochemical reactor.

7. (Previously Presented) A process according to claim 6, wherein said electrochemical reactor forms part of an electrodialysis stack, wherein charged organic products in the reaction mixture can be removed by electrodialysis.

8. (Currently Amended) A process according to claim [[1]] 4, wherein said reaction mixture is contained between [[a]] the bipolar ion exchange membrane on a cathode-

facing side and an anion selective membrane on an anode-facing side of said reaction mixture.

9. (Currently Amended) A process according to claim 1, wherein the ~~reaction mixture~~ ionic buffer comprises a cationic buffer ~~system~~, with an organic product forming an anionic component.

10. (Previously Presented) A process according to claim 9, wherein the DC electric field applied is adjusted to control pH of the reaction mixture.

11. (Previously Presented) A process according to claim 10, wherein adjustment to the DC electric field is automatically controlled under control of a computer program.

12. (Canceled)

13. (Previously Presented) A process according to claim 1, wherein the biocatalysis reaction is selected from a single enzyme biotransformation reaction, a fermentation process and a reaction catalyzed by an isolated enzyme system.

14. (Previously Presented) A process according to claim 1, wherein the reaction mixture comprises any of growing or resting microbial cultures.

15. (Previously Presented) A process according to claim 14, wherein said microbial cultures comprise immobilized cultures of yeast, bacteria or fungi.

16. (Currently Amended) A process according to claim 15, wherein said microbial cultures are immobilized on surfaces or in pores of beads.

17. (Currently Amended) A process according to claim 8, wherein the ~~reaction mixture~~ ionic buffer comprises a cationic buffer ~~system~~, with an organic product forming an anionic component.

18. (Previously Presented) A process according to claim 8, wherein the reaction mixture comprises immobilized microbial cultures of yeast, bacteria or fungi.

19. (Previously Presented) A process according to claim 8, wherein the reaction mixture comprises immobilized microbial cultures on surfaces or in pores of beads.

20. (Previously Presented) A process according to claim 9, wherein the reaction mixture comprises immobilized microbial cultures of yeast, bacteria or fungi on surfaces or in pores of beads.